



Steve Smullen, Principal Engineer

Rio Grande Citizens' Forum

August 9, 2007

Rio Grande Canalization Project

- Constructed 1938-1943
- Water delivery and flood control project
- 106 river miles from Percha Dam, NM to American Dam at El Paso, TX
- 130 miles of flood control levees



Rio Grande Rectification Project

- Constructed in 1930s
- El Paso, TX-Cd.Juarez to Ft.Quitman, TX
- Boundary stabilization and flood control project
- 85 miles of U.S. levee



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Flood Mapping

- FEMA is updating flood insurance rate maps
- FEMA requires levees to contain the 100-year flood with 3 ft. freeboard
- USIBWC notified FEMA last year that it could not certify all levees as meeting this requirement
- FEMA will map flood risk as if the levees did not exist at all
- Water surface elevation for 100 year flood is projected until it intercepts ground elevation on both sides of river



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	Dona Ana

NOTES TO USERS

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To obtain current elevation, description, and/or location information for bench marks shown on this male, please contact the Information Services Branch of the Nethonal Geodelio Survey at (201) 713-3242, or vint. their websits at Security Code 201-

Base map information shown on this FRM was provided by the Texas Department of Transportation. This information was photogrammethically compiled at a scale of 15,000 from serial photography dated 2000.

Corporate femile shown on this map are based on the best data available at the time of publication because theriges due to amenantions or de-amenantions may have occurred after this map were published, map users should contact appropriate community officers to merity control companies that decisions.

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F you have questions about this map or questions conserving the following Photo insurance Program in general, please out 1-677-FEMA MAP (1-677-020-027) or visit to FEMA exclusion of figuress from portion resemble.

NOTE TO USERS

FFMA maintains information about man features, such FEMA maintains information about map heatures, such as street locations and names, in or near designated flood floated areas. Requests to review information in provided to FEMA during the community review policity, and the final Consultation Coordination Officers, the final Consultation Coordination Officers, meeting, or during the statisticy 990-day appeal period. Approved requests for changes will be shown on the final primor FIRMs.



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Flood Mapping

- FEMA has a public appeal and protest process
- USIBWC believes FEMA's model may overestimate flood risk
- Simplified methodology does not take into account levees in place, volume of flow, attenuation due to infiltration, or the lower water surface which is present in a wider floodplain.
- USIBWC will propose additional modeling to accurately map flood risk

Flood Mapping

- Draft maps for Doña Ana County released April 2007
- FEMA issued second of two notices on July 11 to begin the 90 day appeal period.
- Based on the severity of the city's and county's concerns, and due to the intervention of Senator Bingaman, FEMA agreed to halt the FIRM process and fully review the methods and analysis leading to the release of the DFIRMs. There is a chance that FEMA will issue revised maps and will meet again with the county and others to answer follow-up questions. The 90-day appeal period will not begin until after that.
- Draft maps for El Paso County were released July 2007
- FEMA public meeting scheduled for August 22, 6 pm at City Hall

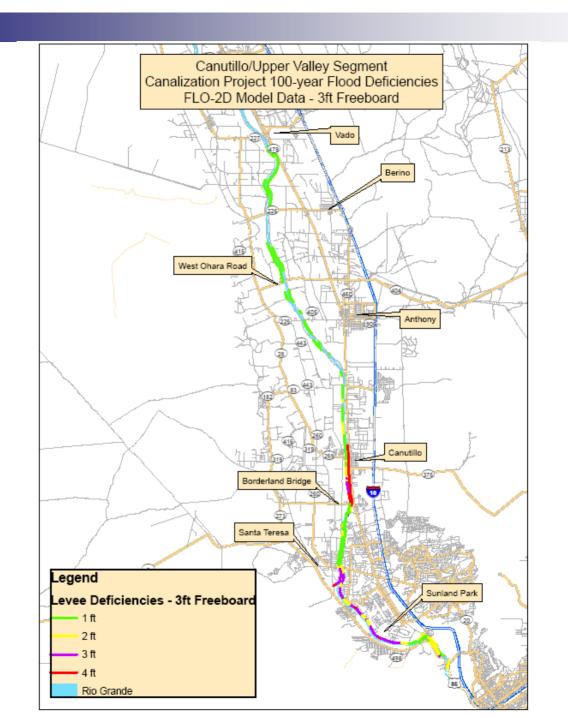
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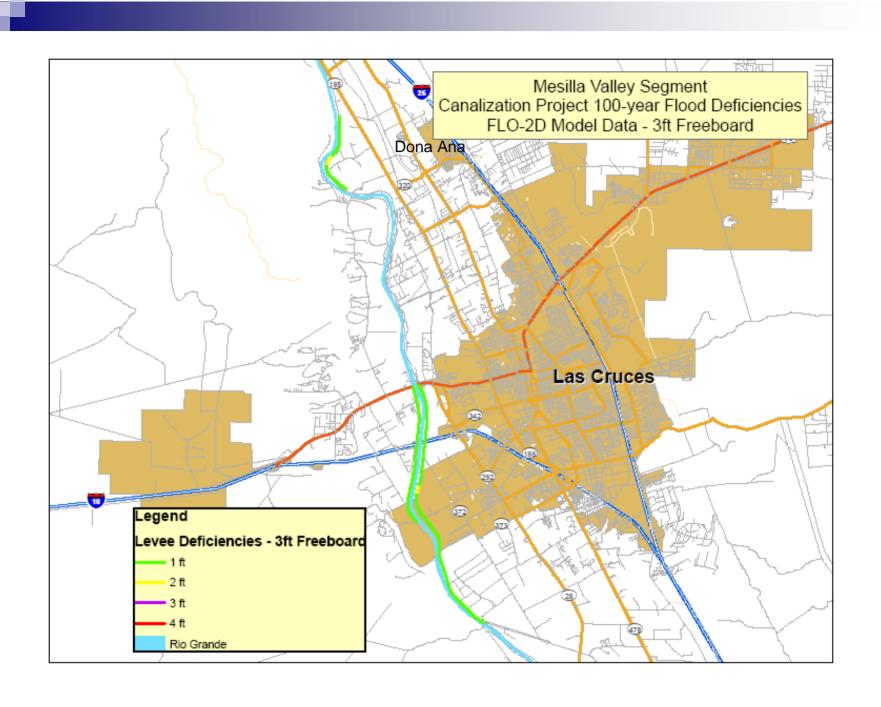
FEMA Interagency Report

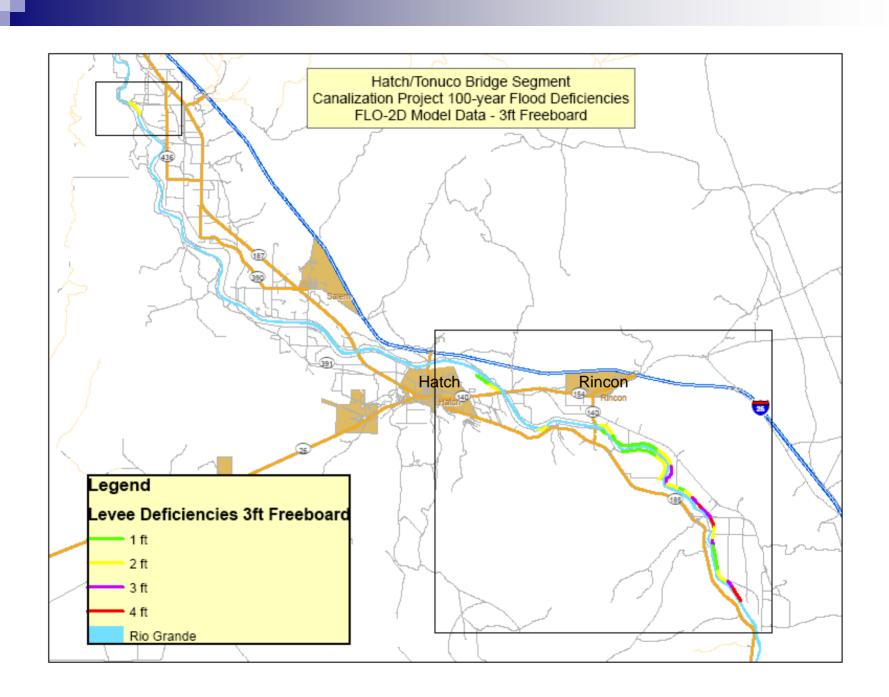
- FEMA released in September 2006
- Proposes a risk based approach to include depth of flooding, number of people affected, type and density of development, etc. and a phase out of the 100 year 3 feet freeboard requirement
- Suggests possibly greater return frequencies in urban areas, ie 500 year flood
- Recommends levee inventory; 10 year inspection report to FEMA

Levee Status – Doña Ana County

- Structural integrity is acceptable, levee height is deficient for 38 miles in Doña Ana County
- USIBWC proposes to raise levees:
 - □ Vado to American Dam 16 miles in New Mexico (\$8.9 million)
 - □ Mesilla Valley 11.55 miles (\$4.3 million)
 - □ Hatch/Rincon/Tonuco Bridge area 10.48 miles (\$6.5 million)







Funding and Priorities-Doña Ana Co

- Levee raising subject to federal appropriations,
 Senate is proposing \$11.7M to raise New
 Mexico levees
- If fully funded this will allow levee raising in NM from Leasburg to Courchesne Bridge. Should partial funding be appropriated, focus will be on Leasburg to Texas line using USIBWC force account personnel.

Environmental Considerations – Canalization Project

- Rio Grande Canalization Project EIS analyzes alternatives for environmental enhancements to accompany levee work
- Selection of an alternative/Record of Decision is on hold pending outcome of collaborative process between environmental groups and EBID
- Environmental enhancements subject to availability of federal appropriations

Environmental Considerations – Canalization Project

- Vegetative growth typically increases water surface elevations
- USIBWC is currently using FLO2D hydraulic model to evaluate dense growth throughout the floodplain and its effect on levee deficiency
- Evaluation of future potential condition for levee raising

Environmental Considerations – Rectification Project

- Draft PEIS out for public comment until September 24, 2007
- Public meeting scheduled for August 21, 2007 at 6:00 pm at USIBWC Headquarters
- Three alternatives under consideration
 - □ Enhanced Operation and Maintenance
 - □ Integrated Water Resources Management
 - Multipurpose Project Management

Levee Status - El Paso County

- Structural integrity is acceptable, levee height is deficient for 26 miles in El Paso County.
- Cost to raise levees in El Paso County is estimated \$21.3 million
- Senate is proposing \$15.0M for Texas levees, much of which will be allocated to similar projects in the LRG Valley, however a portion will be used in El Paso County
- USIBWC proposes to raise levees:
 - □ Upper Valley 13 miles (\$6.5 million)
 - □ Canutillo Floodwall 1.5 miles (\$13.3 million), currently reviewing alternatives to reduce costs

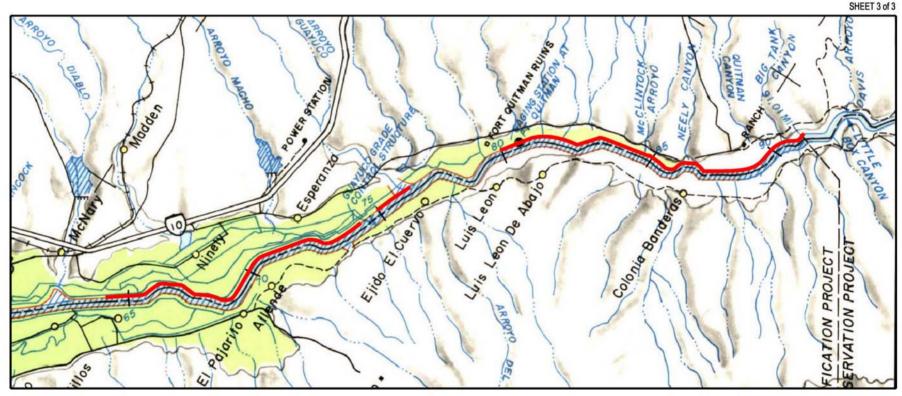
Rectification Project- Levee Deficiency

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Rectification Project - Levee Deficiency

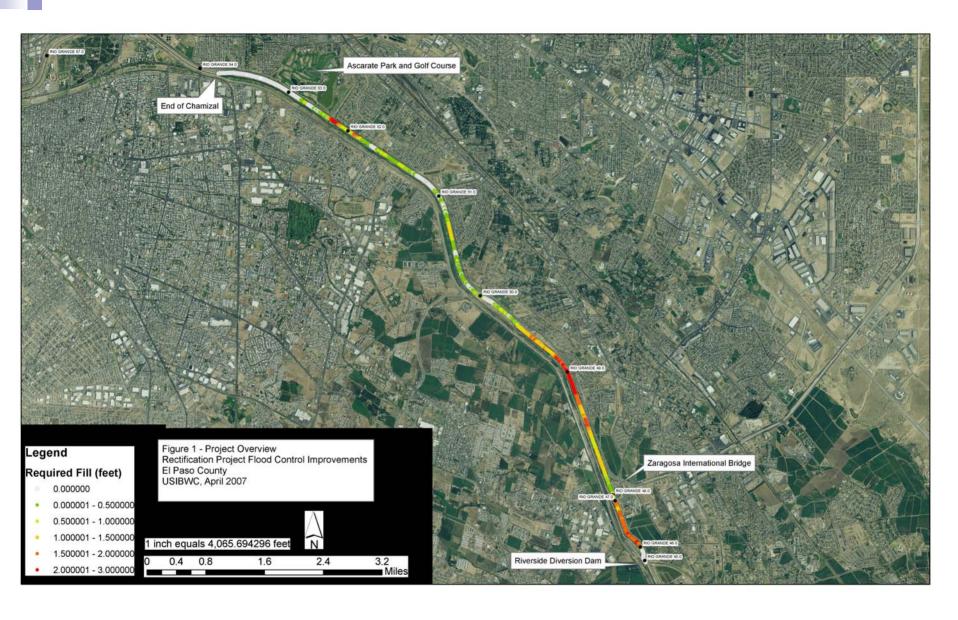
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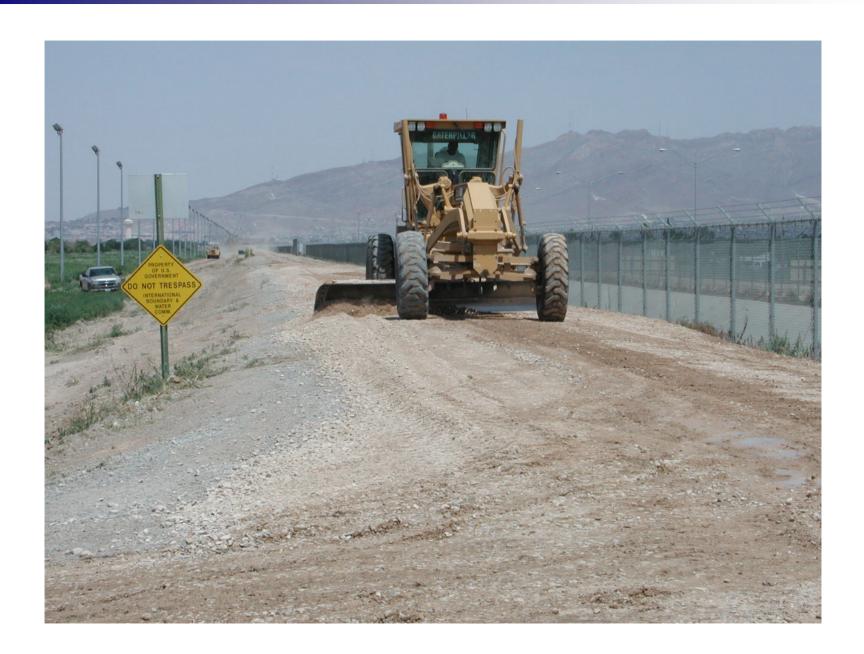
Rectification Project - Levee Deficiency

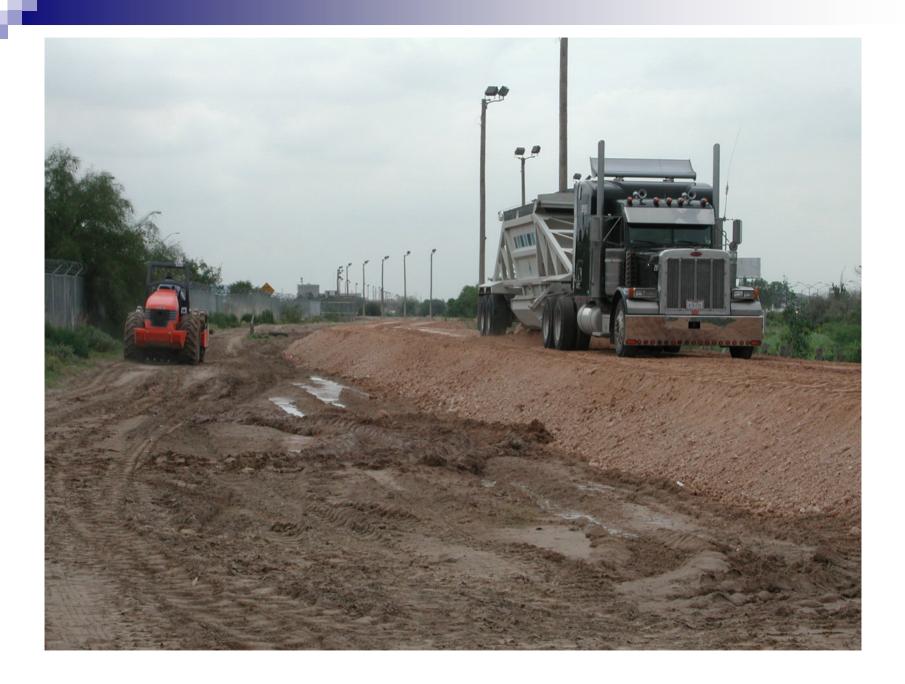


Rectification Project –Partial Certification

- USIBWC plans to certify Rectification levee from International Dam to Ysleta-Zaragoza Bridge area by Dec 2007.
- Affected Area:
 - .5 miles of improvements from International Dam to the beginning of the Chamizal (in progress)
 - □ 7.4 miles of levee raising from end of Chamizal (upstream of Ascarate Park) to Ysleta-Zaragoza Bridge (completed)
- Estimated Completion September 2007
- Estimated Cost \$1.0 million
- Pending closure of Ascarate WW, floodwall construction at Harts Mill WW, City of El Paso drain closures (all expected by end of calendar year)







Sediment Removal – Dona Ana County

- Sediment has been removed at selected arroyo mouths within the Canalization Project and above Mesilla Dam and American Dams in 2006 and 2007
- Additional sediment removal will be performed as funding becomes available.
- Collaborative study for Canalization EIS is addressing the timing and amount of dredging required within areas of the project.

Sediment Removal – El Paso Co. Chamizal Project

- 100,000 cubic meters.
- Estimated cost: \$0.65 million.
- Work being performed by Mexico under agreement between the two Sections of the Commission
- Work is approximately 40% complete





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